

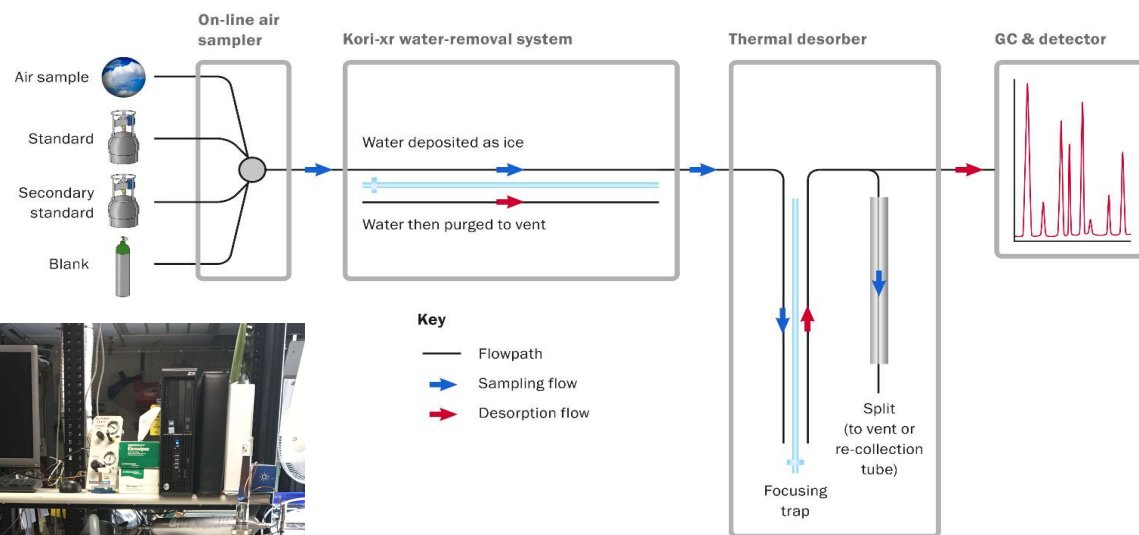


Department of
Environmental
Conservation

Long Island Sound Tropospheric Ozone Study Meeting VOC measurements: Bronx auto GC

Dirk Felton
Division of Air Resources
Bureau of Air Quality Surveillance

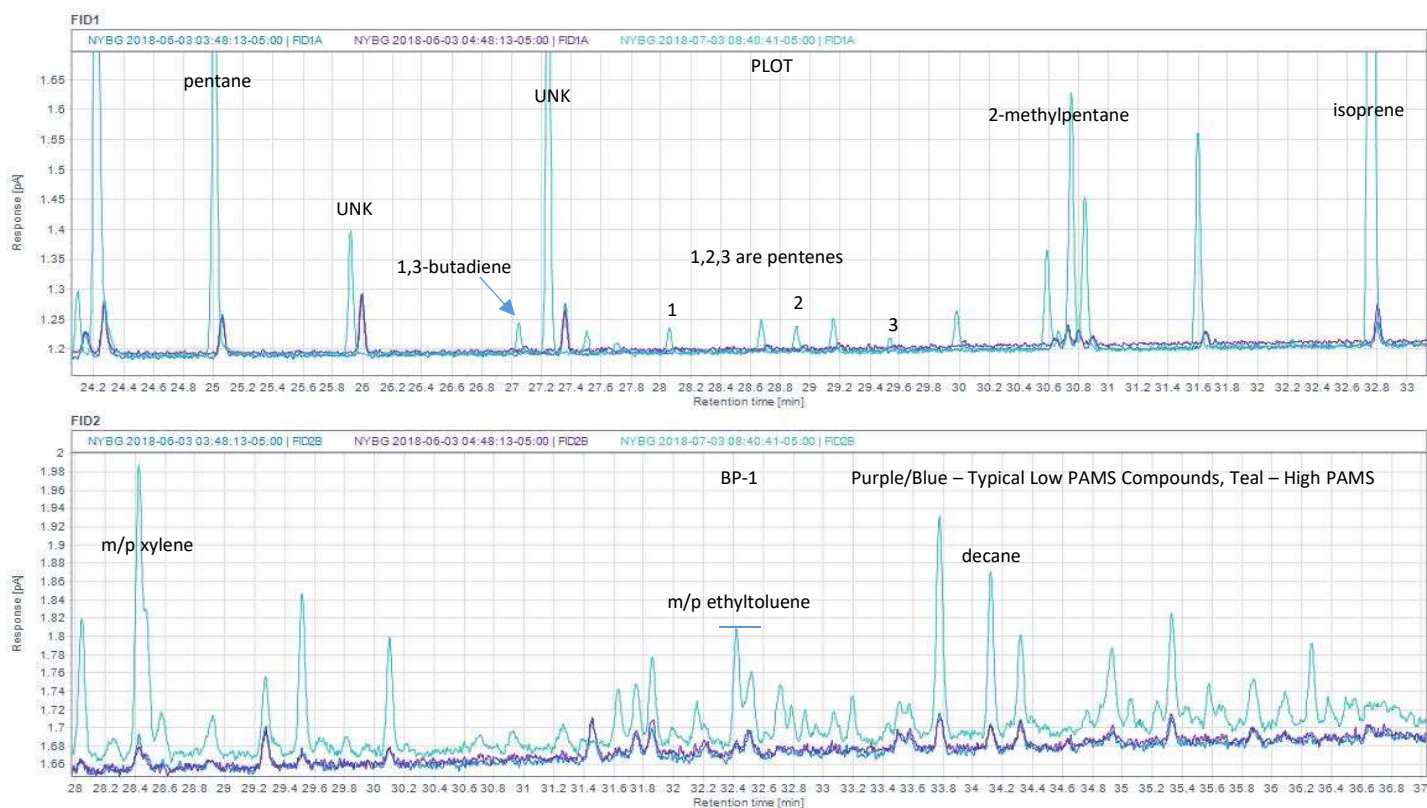
April 11, 2019
NESCAUM: Connecting air quality science with planning needs
Albany, NY



Markes UNITY–Kori–CIA Advantage-xr

Most of the Data are Very Low

Validation requires “pulling peaks out of the grass”





Overcoming the challenges of monitoring PAMS compounds at low ambient levels

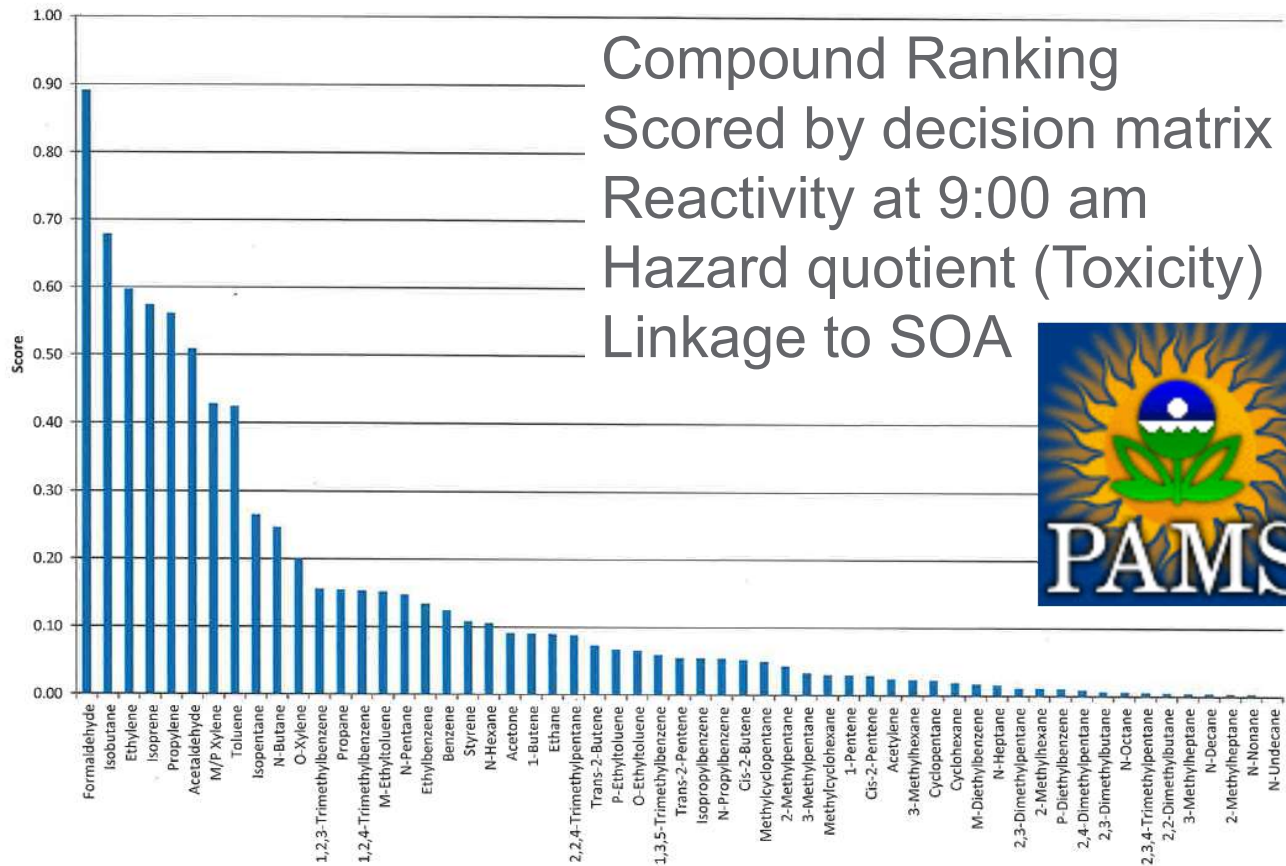
- Success experience of fulfilling requirements of the re-engineered PAMS program using a Markes/Agilent auto GC at NYSDEC

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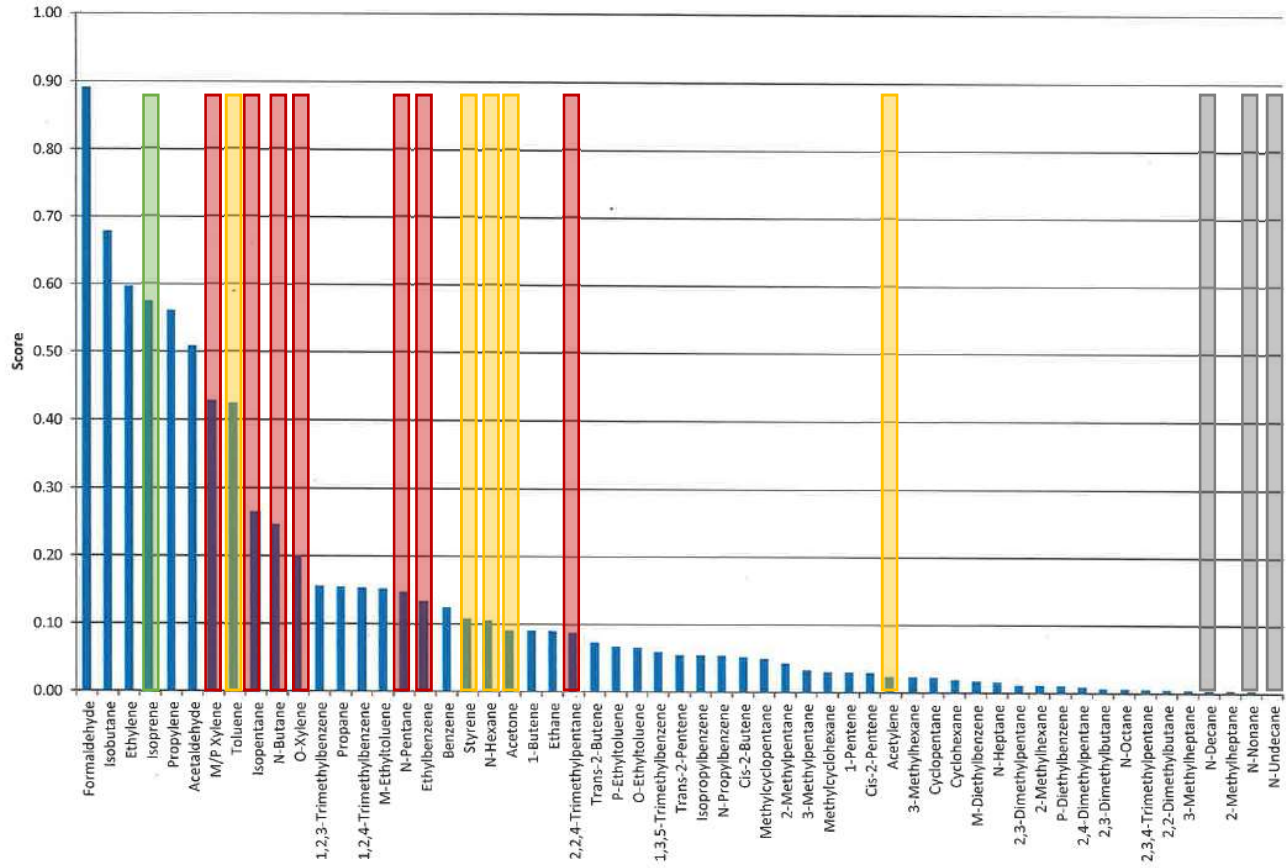
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PAMS Priority Compounds

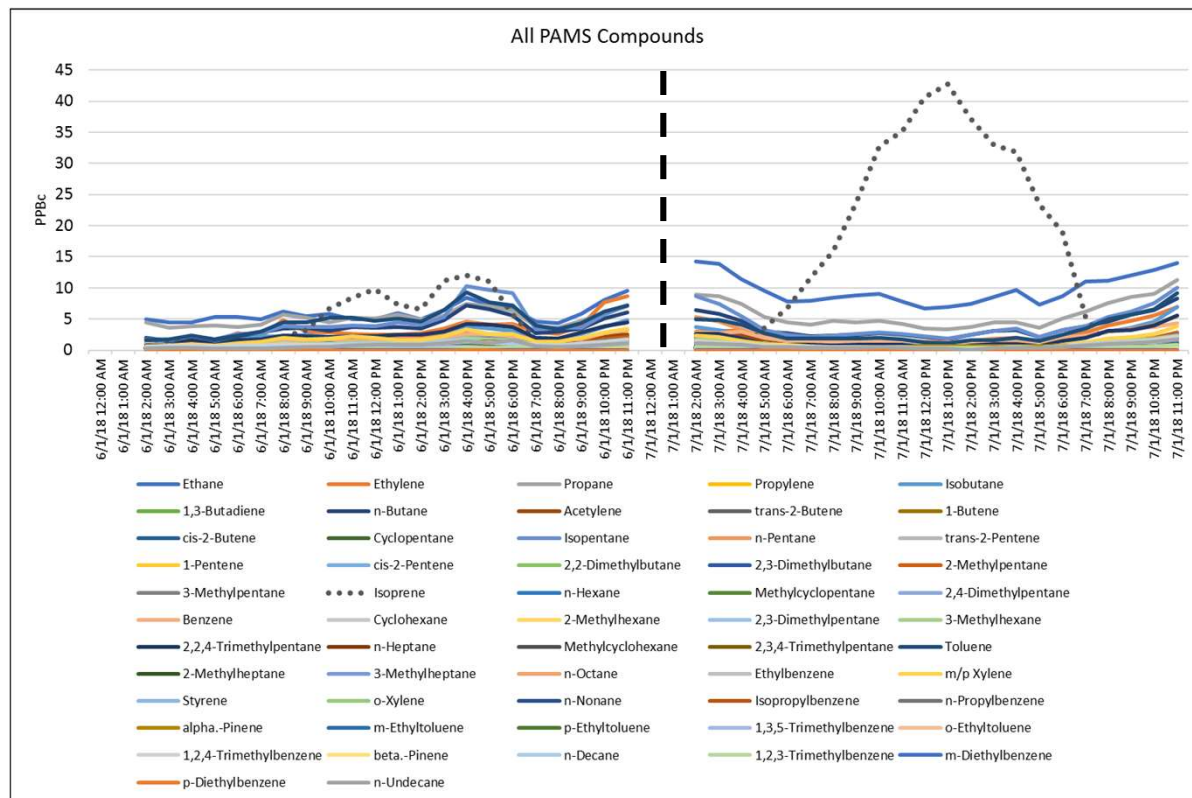


PAMS Priority Compounds



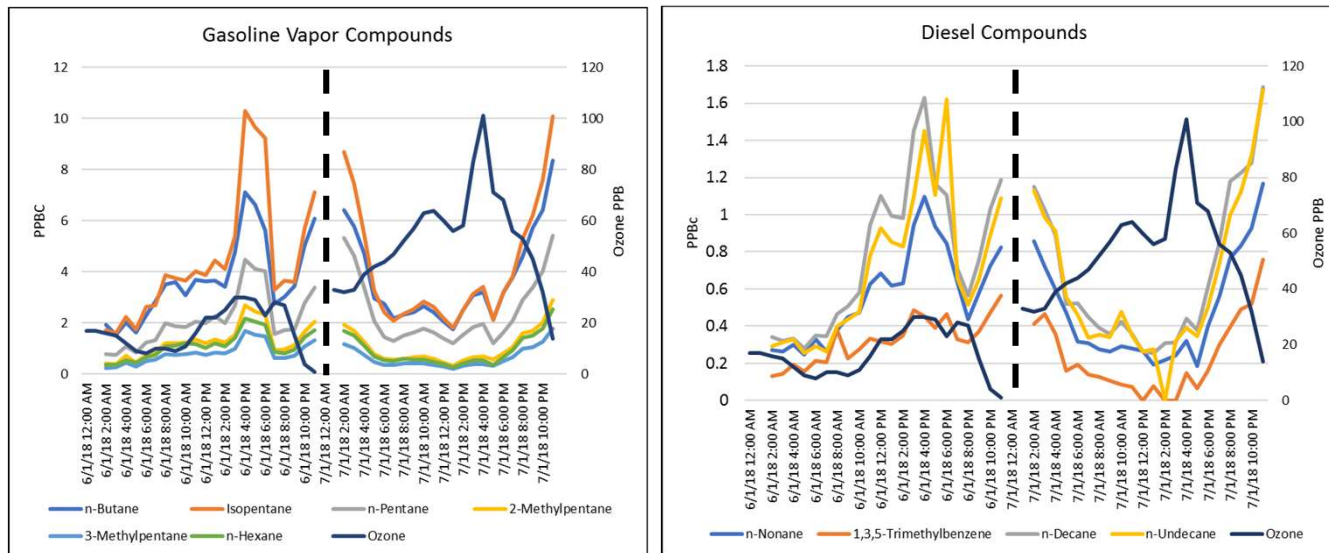
Bronx Auto-System Data

Hourly Data on a low and a high Ozone Day



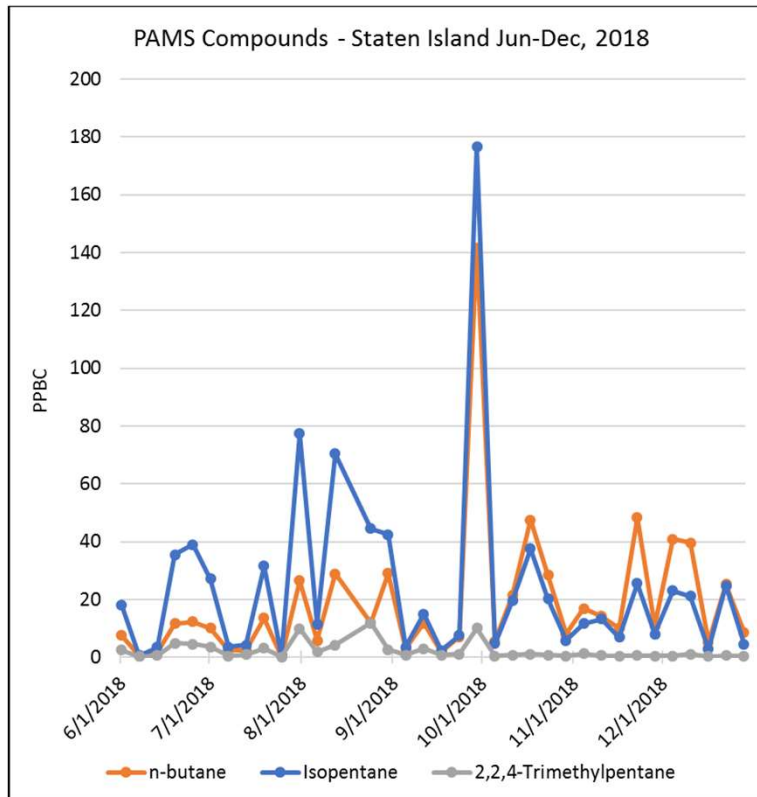
Bronx Auto-System Data

Subset of hourly Data on a low and a high Ozone Day



Diesel compounds are very low in PPBv

PAMS List: Canister Analysis (Gas)



Air Toxics 24-Hr canisters can be analyzed for PAMS target list

Staten Island site is near NJ refineries and fuel distribution facilities

Reform Gas?
Isopentane vs Butane

Conclusions

- Monitoring technology has greatly improved
Auto-System no longer uses Nafion Dryer to control moisture
- Lack of, Need for recent motor fuel and other assays (indicators for source categories)
 - Gasoline, reformulated
 - Diesel
 - Asphalt
 - Landfill, Natural gas distribution

Thank You

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Connect with us:

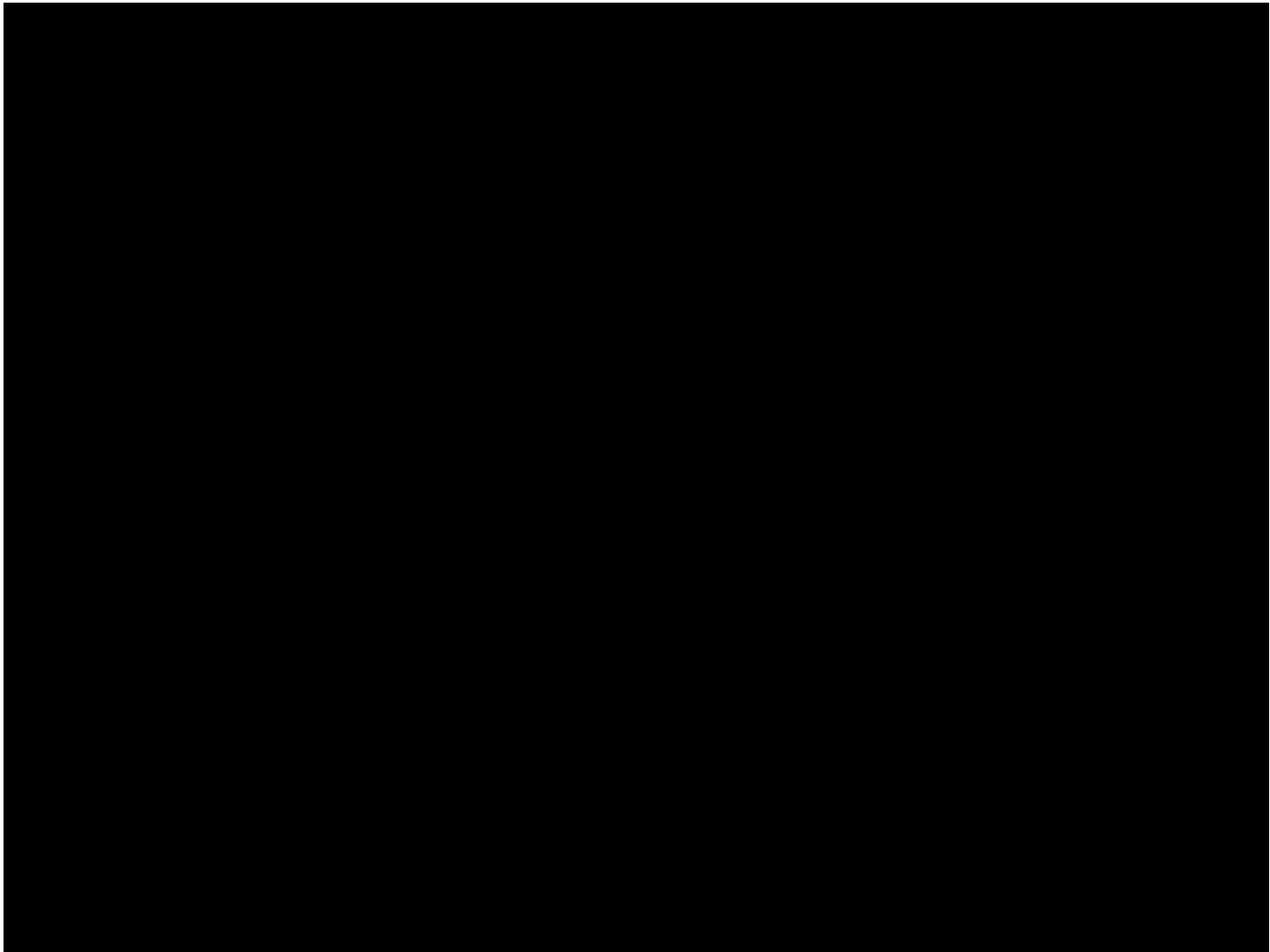
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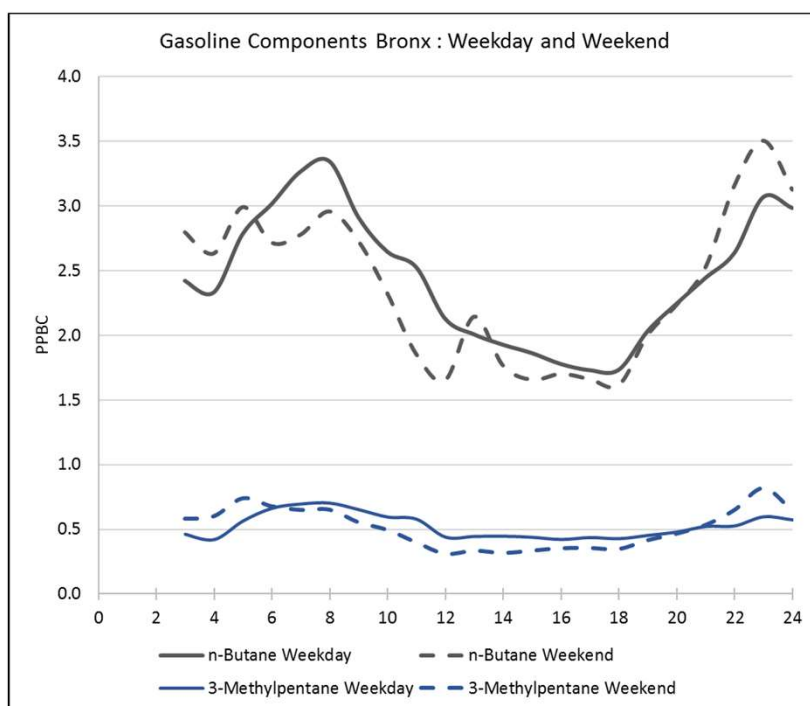
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<http://hazecam.net> January 25, 2013 7:00 am

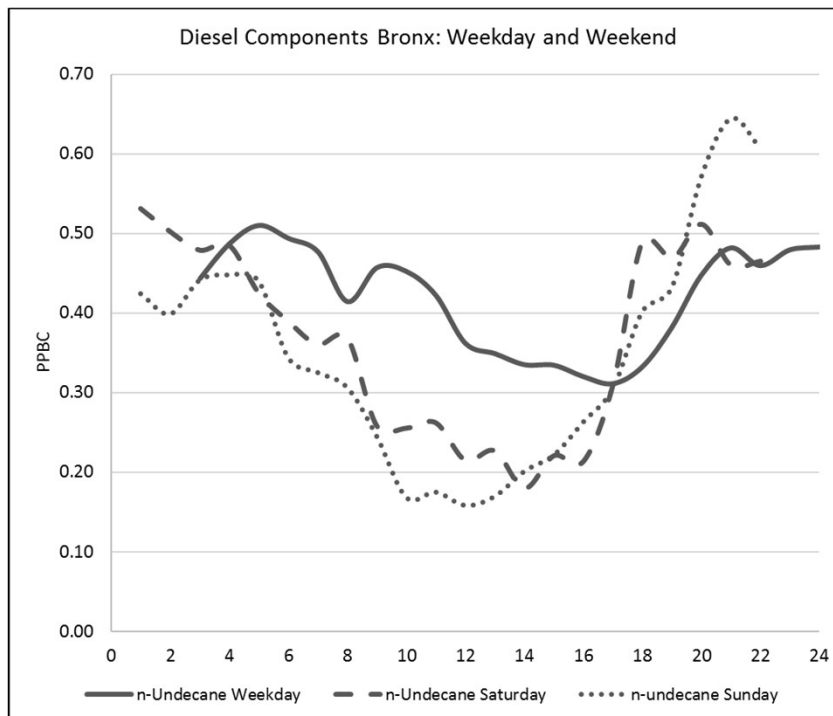


Local Emissions: Motor Vehicles (Gas)



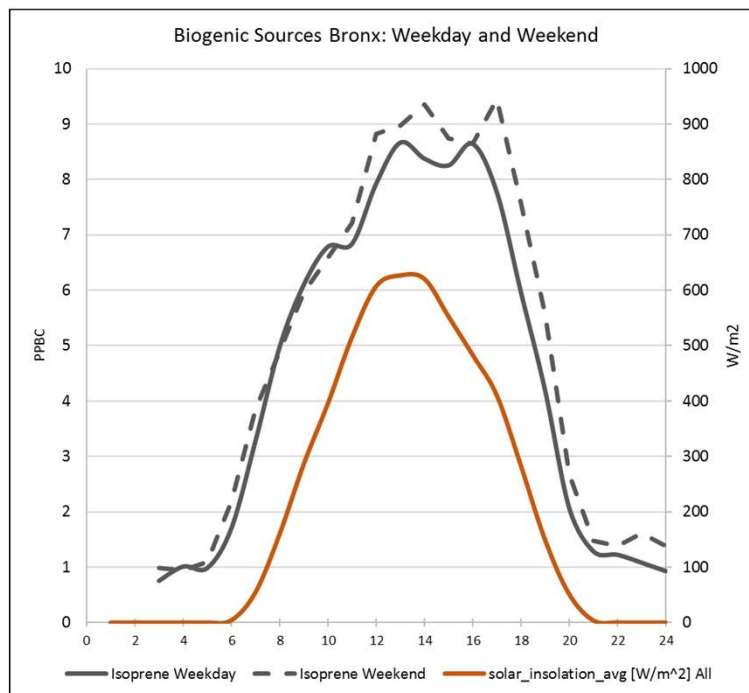
VOCs associated with gasoline emissions are only slightly higher on weekdays

Local Emissions: Motor Vehicles (Diesel)



VOCs associated with diesel emissions are higher on weekdays and lowest on Sundays

Biological Source Emissions:



Isoprene: Slightly higher on weekends due to reduced chemical activity

Alpha and beta pinene: low on average (0.31 and 0.073 PPBC) and not well resolved by the Auto-System